Grade, Subject/Course: 10-12, Foods & Nutrition 2	
Unit: **Nutrition Through the Life Span**	**_____ Essential ___X__ Important _____ Compact**
Big Idea: Nutrition, eating habits, and preparation choices impact overall health and wellness throughout the lifecycle at individual and societal levels.	
PA Core Content Standards/Anchors (or National Standards): **Nutrition Analysis** 11.1.6-8.C: Analyze factors that influence nutrition and wellness practices across the life span. 11.1.9-12.C: Model the ability to acquire, handle, and use foods to meet nutrition and wellness needs of individuals and families across the life span. **Meal Management** 11.1.9-12.D: Evaluate the application of nutrition and meal-planning principles in the selection, planning, preparation, and serving of meals that meet the specific nutritional needs of individuals across their life span. **Nutrition and Health** 11.1.6-8.H: Examine the nutritional needs of individuals and families in relation to health and wellness across the life span. 11.1.9-12.H: Evaluate nutrition principles, food plans, preparation techniques, and specialized dietary plans.	**Interdisciplinary Standards (if applicable):**

Calories and Energy 11.1.6-8.I: Analyze the energy and nutrient requirements for individuals at various stages of the life cycle. 11.1.9-12.I: Analyze the breakdown of foods, the absorption of nutrients, and their conversion to energy by the body.	
Essential Questions: Why are teens vulnerable to the risks of eating disorders? What are eating disorders and why do people with eating disorders need help? What common chronic diseases are related to diet? How have portion sizes changed in the last 20 years? What are the risk factors for food related diseases? What is the connection between food and energy? How and why do energy and nutrient requirements change with age? How do we judge the reliability of food and nutrition information? How do we interpret nutritional labeling? How can a person evaluate the validity of popular diets? How can diets be modified to prevent and/or treat chronic health conditions? What is the connection between food and energy? How is food broken down and absorbed by the body? What factors affect the body's absorption of nutrients? How do resources (e.g., money, space, equipment, skills, time) need to be managed when planning meals? What are the factors people need to consider when planning meals? How can you plan a meal with sensory appeal? What are some of the challenges encountered when planning meals using the principles of meal management? Why is planning meals important? How do meals need to be adapted or planned to meet the specific needs of family members? What type of health issues might affect meal planning over the lifespan?	**Understandings:** ● Students will know that… ○ emotional, psychological and physical factors can have an impact on health. ○ food choices maximize personal health and decrease disease and risk factors. ○ life stages have different energy and nutrient requirements. ○ food and nutrition information need to be interpreted by the consumer. ○ diets can be modified to improve health conditions. ○ nutrients are used in the body's physiological process. ○ meal management principles are an important consideration when planning and preparing foods. ○ meal planning principles can be tailored to meet the needs of individuals across the lifespan. ○ food and nutritional information needs to be interpreted by the consumer.

How do cooking methods influence the nutritional value of foods?	
Knowledge: Eating disorders and treatment options Chronic diseases Portion size distortion over the past 20 years Food related disease risk factors Food to energy connection Nutrient and energy change throughout the life cycle Food labels Socioeconomic & psychological factors impact on food choice, nutrition and behavior Recipe analysis: nutritionally Adaption of meals and recipes: nutritionally & economically Popular diets Modifications techniques used in popular diets Health & diet in cultural and religious groups Nutrient absorption by the body Food to energy conversion Meal planning principles across the lifespan Meal management principles Cooking methods to increase nutritional value of a recipe	**Do/Skills:** ● Students will be able to… ○ analyze societal messages regarding body size. ○ identify common food fads, diets, additions and eating disorders. ○ analyze the effect of food and fad diets, food addictions, and eating disorders on individuals' health & wellness. ○ identify diseases and disorders that are affected by diet. ○ list foods that can be used to decrease risk of chronic disease. ○ describe ways to support friends and family members who have specific dietary needs. ○ examine how energy requirements change over the course of the life cycle. ○ compare nutritional needs of individuals throughout the life cycle ○ explore the connection between physical activity and dietary intake. ○ analyze sources of food and nutrition information, including food labels, related to health and wellness. ○ evaluate the validity of nutritional claims from various sources. ○ assess the influence of socioeconomic and psychological factors on food choice, nutrition, and behavior. ○ identify ways to obtain a healthy diet on a limited budget. ○ analyze recipes for nutrient value. ○ adapt favorite meals/recipes to improve nutritional content while controlling costs. ○ conduct a nutritional analysis of dietary intake for a current health condition. ○ suggest modifications to the diet for a specific health condition. ○ examine the relationship between health and diet across varied cultural and religious groups. ○ explain the breakdown of foods and absorption of nutrients by the body. ○ examine the chemical conversion of food to energy. ○ demonstrate effective use of meal management principles. ○ determine food, equipment, and supplies needed for menus. ○ demonstrate the ability to select, store, prepare, and serve nutritious and aesthetically pleasing foods.

	○ calculate the cost of preparing a meal. ○ predict the amount of time required for meal preparation and plan a time schedule when preparing a meal. ○ create and evaluate a meal plan that is designed to meet specific nutritional needs across the lifespan. ○ apply principles of food production to maximize nutrient retention in prepared foods. ○ utilize menu-planning principles to develop and modify menus to meet a variety of nutritional needs. ○ demonstrate cooking methods that increase nutritional value, lower calorie and fat content, and utilize herbs & spices to enhance flavor.
Vocabulary: Healthy Varied Choose MyPlate Eating disorders Nutrients Nutritional Serving size Dietary guidelines Moderation Nourish Nutrient dense Diet Portion distortion Symptom Disorder Energy Modify Whole grain Nutritional deficiency Empty calories Osteoporosis Calories Digestion Patterns	**Core Resources:** Handouts Textbook: Guide to Good Food Lab ingredients & equipment Food Recipes Reference materials

Krebs Cycle Nutritional need Socioeconomic Psychological Breakdown Absorption Physiological Recipe Yield Consistent Components Cooking time Sanitation Convenience foods Meal planning Hypothesize Budget Nutritional needs Tailor Lifespan	
Common Assessment(s): Objective Tests/Quizzes Constructed Responses Projects Class Participation Note taking Presentations Daily Assignments Performance tasks Food Lab Evaluations	**Supplemental Resources:** videos Reference materials posters & other visual materials

Grade, Subject/Course: 10-12, Foods & Nutrition 2	
Unit:Food Safety & Foodborne Illness	**___X__ Essential _____ Important _____ Compact**
Big Idea: Nutrition, eating habits, and preparation choices impact overall health and wellness throughout the lifecycle at individual and societal levels.	
PA Core Content Standards/Anchors (or National Standards): **Food Supply** 11.1.6-8.A: Evaluate factors that affect food safety from production through consumption. 11.1.9-12.A: Predict factors that affect food safety and security from production through consumption. **Safety and Sanitation** 11.1.6-8.B: Demonstrate food safety and sanitation procedures. 11.1.9-12.B: Evaluate the role of government agencies in safeguarding our food supply.	**Interdisciplinary Standards (if applicable):**
Essential Questions: What actions can a person take to handle food safely? How can we control environmental conditions to keep food safe? What actions can be taken to prevent and reduce kitchen accidents? Why must some foods be cooked before eating? Why is it important to master basic food preparation techniques, such as measuring, cutting, mixing, and cooking? What kinds of knowledge do you need to successfully prepare foods? Why is cross contamination a hazard? What conditions increase the risk of food-borne illness? What do government agencies currently do to protect our food supply?	**Understandings:** ● Students will know that… ○ proper food contamination and hygiene techniques should be used when handling food. ○ environmental conditions affect food safety. ○ foods can be prepared and handled by using various methods. ○ food contamination can be caused by biological and chemical agents. ○ the government plays a role in safeguarding the food supply. ○ basic food preparation techniques need to be used when making food product. ○ there are proper food handling procedures needed when working with food.

What actions might the government agencies need to take in the future to protect our food supply? In what ways has food science enhanced the food supply available to consumers? How do bioengineered foods increase the quantity and quality of the food supply? How can consumers evaluate the positives and negatives of food engineering?	
Knowledge: Personal hygiene as it relates to food safety Types of food borne illnesses Factors that contribute to food borne illness Conditions/practices for safe food handling Basic and advanced food preparation techniques Preventative steps to prevent food contamination Safe food handling techniques Government agencies (FDA, CDC, USDA, EPA): Inspection, labeling systems, role in regulating & protecting food supply	**Do/Skills:** ● Students will be able to… ○ explain the importance of personal hygiene ○ demonstrate correct procedures for handwashing, avoiding germ transfer, and storing foods to prevent spoilage. ○ identify food-borne illnesses. ○ describe factors that contribute to food borne illness. ○ list conditions & practices that promote safe food handling. ○ explain basic food preparation techniques. ○ demonstrate proper food handling procedures and techniques. ○ identify ways to prevent food contamination. ○ research food borne illness. ○ demonstrate standard procedures for receiving and storage of raw and prepared foods. ○ analyze federal,state and local inspection & labeling systems that protect the health of individuals & the public. ○ describe the government's role and responsibility in regulating and protecting the food supply. ○ describe the process of food production from farm to table. ○ investigate safety and sanitation practices throughout the food production chain. ○ identify and analyze how scientific and technological advances influence the nutrient content, availability, quality and safety of foods. ○ describe the effects of scientific and technological advances on selections, preparation & home storage of foods. ○ hypothesize how food engineering and technology trends will influence food supply in the future.

	○ investigate the governmental, economic, and technological influences on food choices and practices. ○ analyze how changes in national and international food production and distribution systems influence the food supply and its safety. ○ describe the effects of food science and technology on our understanding of nutritional needs. ○ analyze sources of food and nutrition information, including food labels, related to health and wellness.
Vocabulary: Hygiene Contamination Bacteria Germs Food-borne illness Cross contamination Microbial contamination FDA (Food and Drug Administration) CDC (Centers for Disease Control) USDA (United States Department of Agriculture) EPA (Environmental Protection Agency) Food production Recipe Yield Consistent Components Cooking time Sanitation Convenience foods Preparation techniques Meal management	**Core Resources:** handouts Textbook: Preparation for Life & Career and Food For Today Lab ingredients & equipment Food recipes videos Reference materials

Common Assessment(s):	**Supplemental Resources:**
Objective Tests/Quizzes Constructed Responses Projects Class Participation Note taking Presentations Daily Assignments Performance tasks Food Lab Evaluations	Textbook: Guide to Good Food Videos Handouts Reference materials posters & other visual materials

Grade, Subject/Course: 10-12, Foods & Nutrition 2	
Unit: Advanced Food Preparation	**___X__ Essential _____ Important _____ Compact**
Big Idea: Nutrition, eating habits, and preparation choices impact overall health and wellness throughout the lifecycle at individual and societal levels.	
PA Core Content Standards/Anchors (or National Standards): **Safety and Sanitation** 11.1.6-8.B: Demonstrate food safety and sanitation procedures. **Culinary Math and Measurement** 11.1.3-5.E: Demonstrate measurement skills used in food preparation. 11.1.6-8.E: Apply measuring and math skills in following recipe directions. 11.1.9-12.E: Apply principles of measurement, portion control, conversions, food cost analysis and control, menu terminology, and menu pricing to menu planning. **Culinary Equipment and Technology** 11.1.6-8.F: Prepare a recipe using fundamental culinary skills and techniques. 11.1.9-12.F: Apply the fundamentals of time, temperature, and cooking techniques to preparing, cooking, cooling, reheating, and holding a variety of foods. **Food Science** 11.1.6-8.G: Demonstrate food science through principles of food biology and chemistry. 11.1.9-12.G: Analyze the relevance of scientific principles to food processing, preparation, and packaging.	**Interdisciplinary Standards (if applicable):**

Essential Questions:	**Understandings:**
Why is it important to use proper food safety and sanitation procedures when preparing food? Why is it important to apply measuring and math skills in following the recipe directions? Why is it important to measure ingredients correctly when preparing a food? Why is it important to apply portion control when serving food? How do I convert recipes to increase the amount a recipe will serve? How do I apply food cost analysis and control when meal planning? What menu terminology is important to include when creating a menu? How do I determine the menu pricing for food listed on a menu? How do food preparation and preservation techniques result in physical changes to the ingredients? How do I apply fundamental culinary skills and techniques when preparing a recipe? How does time, temperature, and cooking techniques impact a food being prepared? How does time, temperature, and cooking techniques impact a food being cooked properly? How does time, temperature, and cooking techniques impact a food being cooled properly? How does time, temperature, and cooking techniques impact a food being reheated to a safe temperature? How does time, temperature, and cooking techniques impact a food being held at the proper temperature for service? How do I use biological food science principles to properly prepare food? How do I use chemical food science principles to properly prepare food? Why is it important to analyze the relevance of scientific principles to food processing, preparation, and packaging? What are ways to control enzymatic actions in foods? What advances in processing and packaging have affected our food supply?	● Students will know that… ○ food preparation and preservation cause physical and chemical changes to occur. ○ the application of scientific principles in food processing, preparation, and packaging has expanded the availability of the global food supply. ○ proper food safety and sanitation procedures must be followed when preparing food. ○ applying measuring and math skills is important when following the recipe directions. ○ measuring ingredients correctly is necessary when preparing a food. ○ it is important to apply portion control when serving food. ○ converting recipes is needed to increase the amount a recipe will produce. ○ it is important to use food cost analysis and control factors when meal planning. ○ there is certain menu terminology used in creating a menu for a restaurant. ○ determining menu pricing on a restaurant's menu is essential for a restaurant's success. ○ fundamental culinary skills and techniques are needed when preparing a recipe. ○ time, temperature, and cooking techniques impact a food being prepared, cooked, cooled, reheated and held at a safe temperature properly. ○ biological and chemical food science principles are used to properly prepare food. ○ it is important to analyze the relevance of scientific principles to food processing, preparation, and packaging. ○ it is important to know how to control enzymatic actions in foods. ○ advances in processing and packaging have positively affected our food supply. ○ nutrients can be affected by the methods of processing, preparing and storing food.

How are nutrients affected by the methods of processing, preparing and storing food?	
<u>Knowledge:</u> Food safety and sanitation skills Measuring ingredients and math skills used in following a recipe Principles of measurement, portion control, conversions, food cost analysis and control, menu terminology, and menu pricing to menu planning. Food preparation and preservation techniques Fundamental culinary skills and techniques used in a recipe Fundamentals of time, temperature, and cooking techniques to preparing, cooking, cooling, reheating, and holding a variety of foods. Biological and chemical food science principles Scientific principles of food processing, preparation, and packaging Enzymatic actions in foods Processing, preparing and storing food can affect the foods nutrients Food processing scientific principles Food preparation scientific principles Food packaging Development of foods for specific populations/situations Fortified foods	**<u>Do/Skills</u>:** ● Students will be able to… ○ apply food safety and sanitation skills when preparing a recipe. ○ measuring ingredients used in following a recipe. ○ apply math skills in following a recipe. ○ apply principles of measurement to menu planning. ○ apply principles of portion control to menu planning. ○ apply principles of conversions to menu planning. ○ apply principles of food cost analysis and control to menu planning. ○ apply principles of menu terminology to menu planning. ○ apply principles of menu pricing to menu planning. ○ explain how to prolong the freshness of food and increase its shelf life ○ explain how heat energy changes food. ○ explain how various preparation techniques physically and chemically change food. ○ explain how the interaction of ingredients produces chemical changes in food preparation. ○ explain why it is important to follow the recipe directions in order when preparing a food. ○ investigate how technology has expanded our food supply, food use, and distribution. ○ explore how foods are developed for specific populations and situations. ○ examine fortified foods.

Vocabulary:	**Core Resources:**
Portion control Conversion Cost analysis Menu planning Nutritional Balance Variety Moderation Cost Convenience Seasonality Sustainability Personalization Menu terminology A la Carte Prix Fixe Tasting Menu Static Menu Cycle Menu Appetizer Entree Dessert Side Dish Beverage Al dente Al gratin Amuse-bouche Hore d'oeuvre Confit Seared Menu pricing Cost-plus Value-based Competitive Psychological Charm	handouts Textbook: Guide to Good Food Lab ingredients & equipment Food Recipes videos Reference materials

Premium Dynamic Decoy Bundle Shelf life Food supply Mold Yeast Enzymes Blanching Sulfuring Soluble Solution Dissolve Melt Ignite Steam Leavening agents Ultra-high temperature Aseptic packaging Designer foods Scientific principles	
Common Assessment(s): Objective Tests/Quizzes Constructed Responses Projects Class Participation Note taking Presentations Daily Assignments Performance tasks Food Lab Evaluations	**Supplemental Resources:** videos Reference materials posters & other visual materials